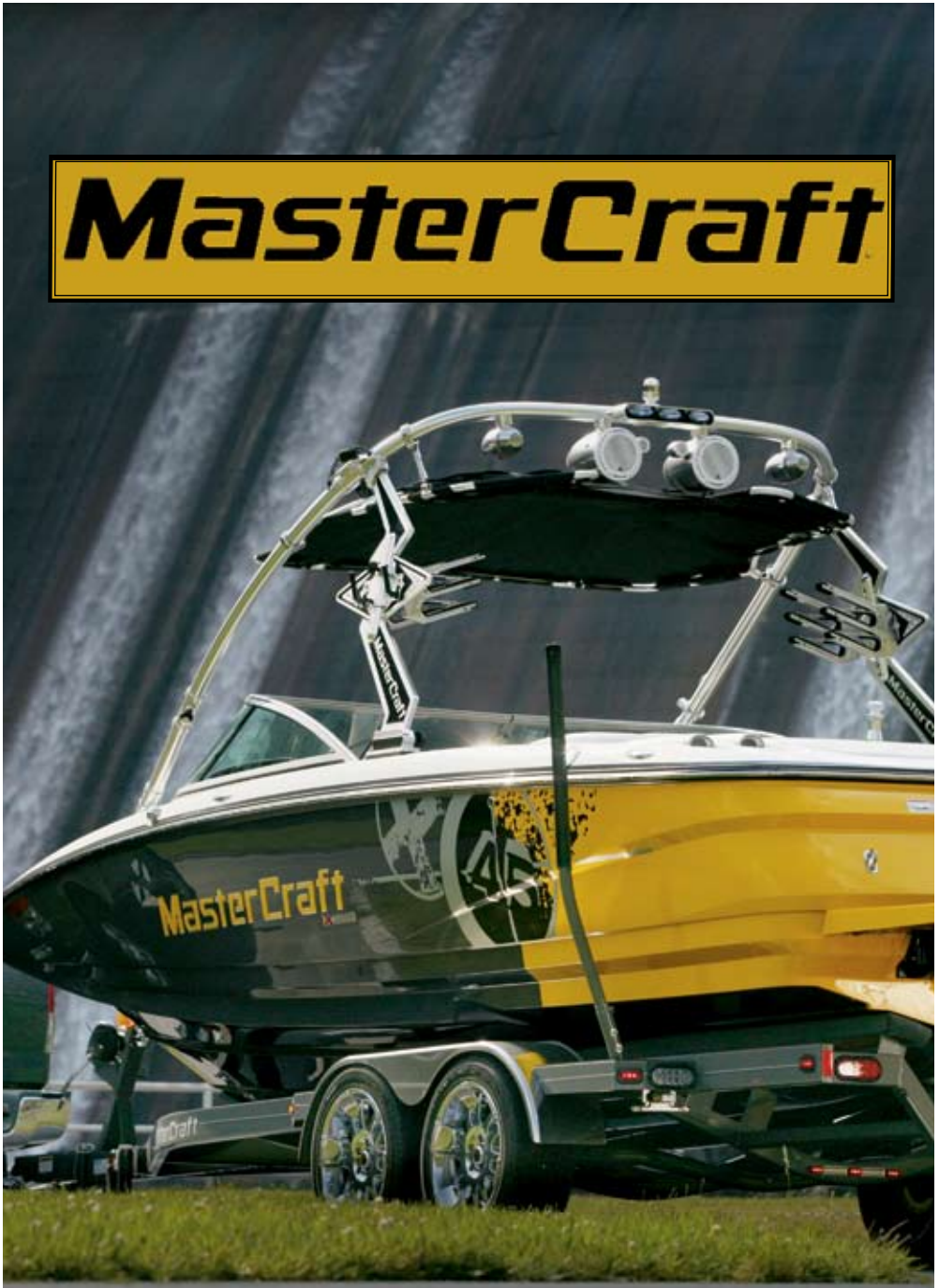
MasterCraft



Trailer Manual

The MasterCraft Trailer

CONGRATULATIONS on the selection of a MasterCraft trailer. It is the ideal match for MasterCraft boats. The quality, innovation, selection and value of MasterCraft trailers are unmatched in the industry.

Please take a few minutes to read this Manual completely before using the MasterCraft trailer for the first time. It provides substantial information about the trailer. If you still have questions after reviewing this Manual, be sure to contact a MasterCraft dealer. It is important that any and all trailer operators possess as much knowledge as possible.

All information in this Manual is based on the latest product information available at the time of printing. Because of our policy of continuous product improvement, MasterCraft reserves the right to make changes in specifications and models at any time. We also reserve the right to change specifications, parts or accessories at any time without incurring any obligation to equip the same on models manufactured before the date of the change.

Due to changes in specifications, models, parts and/or accessories which may occur after publication of this Manual, the Manual may not reflect those changes. The illustrations used in this Manual are intended only as representative reference views and may not depict actual model component parts. Information about certain components furnished by the suppliers other than MasterCraft is provided separately. This information is available at authorized MasterCraft dealerships.

Note: The information given in this Manual may not be applicable to international rules of the road. If you have any questions, please contact your local authorities.

Visit us on the web at www.mastercraft.com for updates and additional information as it becomes available, as well as for any future potential service information pertaining to the trailer. For specific questions about the MasterCraft trailer, feel free to contact an authorized MasterCraft dealer.

The maintenance, service and repair procedures described in this Manual should be performed only by trained and authorized factory personnel or dealer technicians. To avoid serious injury or damage to the boat or its components, all steps in each procedure and all safety recommendations should be strictly observed. Failure to follow the procedures and safety recommendations described herein will void any and all warranties and may cause personal injury or damage to components and adversely affect the operation of the trailer. CONSUMERS SHOULD NEVER ATTEMPT TO UNDERTAKE THE MAINTENANCE AND REPAIR PROCEDURES DESCRIBED IN THIS MANUAL.

Warnings and Cautions

Throughout this Manual the terms "WARNING" and "CAUTION" appear, alerting the trailer owner or operator to dangerous or potentially dangerous situations that may arise. Those terms have the following respective meanings whenever they appear herein.

This is the safety alert symbol. It is used to alert you to potential personal injury hazards. Obey all safety messages that follow this symbol to avoid possible injury or death.

WARNING indicates a potentially hazardous situation, which, if not avoided, could result in serious injury or death.

CAUTION indicates a potentially hazardous situation, which, if not avoided, may result in minor or moderate injury.

Failure to adhere to and comply with the safety warnings and cautions that appear in this Manual can lead to serious illness, injury or even death and/or damage to the trailer, your boat, the towing vehicle or the property of others. Beyond these warnings, drivers have a personal responsibility to utilize a common sense approach to the towing experience. The consumer is ultimately responsible for a positive and safe involvement in towing and maintaining safety standards for the trailer.

MasterCraft strongly encourages you to cross-reference and read all warnings and cautions set forth in this Manual within the context in which they are presented, by reading and reviewing the entire section of the Manual that relates to each warning and caution. You MUST also be familiar with state and

local ordinances regarding driving and towing. MasterCraft also recommends a thorough review of applicable insurance coverage and any insurance carrier's restrictions and coverage for towing, as well as a review and adherence to recommendations presented in the tow vehicle's Owner's Manual.

WARNING indicates a potentially hazardous situation, which, if not avoided, could result in serious injury or death.

1. Before towing this trailer, be sure to read and familiarize yourself with this Manual.

2. The total weight of the boat, engine, fuel, water and gear must not exceed the trailer's maximum load-carrying capacity. Overloading can cause serious injury or property damage. Note: The Gross Vehicle Weight Rating ("GVWR") is the estimated total weight of a road vehicle that is loaded to capacity including the weight of the vehicle itself. Therefore, the maximum load-carrying capacity of the trailer is the GVWR less the weight of the empty trailer.

3. Do not tow the boat with wakeboards or skis in the boat or ski racks. Doing so may create a hazard for, or cause damage to, vehicles following behind the tow vehicle as the boards and/or skis may become disengaged while traveling, possibly resulting in damage to the vehicle or boat, which would not be covered by warranty.

4. Towing with water-filled bladder(s) may not only cause the total weight limits for the trailer to be exceeded but may also result in the improper distribution of the weight on the trailer, thereby making towing difficult and/or causing instability when towing, which can be very dangerous to the driver, any passengers, and to other motorists. NEVER tow with water in the ballast bladders or tanks!

5. If the total weight on the loaded trailer exceeds the load capacity of the hitch on the tow vehicle, then the trailer may break free, which may result in serious injury or death and/or property damage.

6. Failure to properly attach the safety cables and brake actuator breakaway cable between the trailer and the tow vehicle may result a run-away trailer if the trailer coupler becomes detached from the hitch. This may cause serious injury or death and/or property damage.

7. Failure to properly engage the hitch ball in the coupler ball socket and to securely lock the coupler latch mechanism can cause the trailer to become detached from the tow vehicle while traveling, which may result in serious injury or death and/or property damage.

8. Before each use make certain that all of the trailer lights are in proper working order, to reduce the risk of serious injury, death and/or property damage.

9. Maintain the proper torque on the lug nuts attached to the wheel bolts. Failure to do so may result in serious injury or property damage. A MasterCraft dealer can provide the proper torque specifications (measured in foot-pounds).

10. Keep the wheel bearings lubricated. Inspect the wheel bearings for proper lubrication before each use. Failure to do so may cause wheel failure and possible wheel loss, which may result in serious injury or death and/or property damage.

11. Keep tires properly inflated. Inspect each tire's pressure before each use. Refer to the tire sidewall for proper inflation. Failure to maintain the correct tire pressure may result in tire failure and loss of control, which may result in serious injury or death and/or property damage.

12. Trailer brakes must be maintained in good working condition at all times. Inspect the brake system on a regular basis and verify proper fluid level in the actuator. The loss of adequate braking could result in serious injury or death and/or property damage.

13. Failure to engage the locking pin may result in the collapse of the jackstand, which could cause serious injury or death.

⚠ CAUTION

CAUTION indicates a potentially hazardous situation, which, if not avoided, may result in minor or moderate injury.

1. Use great care when walking, standing or loading and unloading boats on or around any launch ramps as some launch ramps may be slippery when wet.

2. Wet brakes may not hold and/or may cause brakes to have diminished performance characteristics. A few braking applications at a slow speed will help to dry them out. Extra care must be used when braking after brakes have become wet.

Quick Tips

Here are some quick tips for maintaining the trailer in excellent condition.

- Chips in the paint, especially on the axles and frame, result when these surfaces are subjected to repeated or severe hits by external objects. Usually, these are gravel or asphalt chips thrown up by the rear tires of the tow vehicle. Over time, rust may develop where paint has been chipped away, and

this is **not** covered by the Limited Warranty for the trailer. To avoid this situation, consider attaching mud flaps behind the tow vehicle's rear tires. Exceptional care should be taken to travel as slowly as practical when traveling on gravel or other loose surfaces.

- To ensure proper operation of the trailer jack, wipe it down and lubricate it on a regular basis.
- If the trailer is backed into salt water, you must completely and thoroughly wash the trailer in fresh water to retard rusting. Salt water is very corrosive, even on galvanized trailers, and can corrode the brake system as well. Exposure to salt water can also cause brake pads to stick and malfunction.
- Check the braking system in the spring and again in the fall, along with the wheel bearings. If there is anything that appears to be worn or leaking, take the trailer to an authorized MasterCraft dealer for a check and possible repair.
- Tow vehicles must always approach the trailer slowly prior to being hitched to the trailer. This allows the operator to retain greater control. Hard impact with the trailer or improper alignment on the trailer can result in damage to the boat, the trailer, or both, and this is not covered under warranty. Also, if the trailer is equipped with the Boat Buddy System, a hard hit against it could cause damage, which is also not covered by warranty.
- The tow vehicle must have a seven-wire connector in order for disc brakes and the trailer lights to function properly. It is important to properly connect the seven-wire connector on the trailer to the seven-wire connector on the tow vehicle.

The correct method for determining the load limit is to:

- Locate the statement, "The weight of cargo should never exceed ____ kg or ___ lbs.," on the placard. (This figure equals the available amount of cargo and luggage load capacity.)
- Determine the combined weight of luggage and cargo being loaded on the vehicle. (That weight may not safely exceed the available cargo and luggage load capacity.)

Introduction

With the purchase of a new MasterCraft trailer, custom-built to integrate with a MasterCraft boat, value has been added to the boating experience. Thousands of recreational waterways are now available.

As the manufacturer, MasterCraft has provided a vehicle designed specifically for many years of attractive, trouble-free service. Now, it is up to the owner and/or operator to give it proper care and maintenance to be sure it will continue to perform safely and satisfactorily.

The purpose of this section of the Manual is to help owners and operators do just that. Please read and follow the warnings and instructions carefully. Also, because all trailers are not exactly alike, be sure to read and comply with any warnings and additional information supplied by MasterCraft and parts suppliers within the owner packet. It's the best way to obtain peak performance.

Before towing this trailer, be sure to read and familiarize yourself with this Manual.

A Proper Match

The key to carefree boat trailering is the proper match of boat to trailer. This proper match is only one reason why the MasterCraft engineering staff has designed the trailer to carry the full weight of the boat, engine and a reasonable amount of gear. It also provides the proper support for the boat hull during storage.

The total weight of the boat, engine, fuel, water and gear must not exceed the trailer's maximum load-carrying capacity. Overloading can cause serious injury or property damage. Note: The Gross Vehicle Weight Rating ("GVWR") is the estimated total weight of a road vehicle that is loaded to capacity including the weight of the vehicle itself. Therefore, the maximum load-carrying capacity of the trailer is the GVWR less the weight of the empty trailer.

Load-Carrying Capacity

Check the metallic certification label attached to the front left side of the trailer. It will show the maximum load-carrying capacity of the trailer. It will also show the Gross Vehicle Weight Rating (GVWR). The Gross Vehicle Weight Rating ("GVWR") is the estimated total weight of a road vehicle that is loaded to capacity, including the weight of the vehicle itself. Therefore, the maximum load-carrying capacity of the trailer is the GVWR, less the weight of the empty trailer. ***Be sure that the total weight of the boat, engine, gear and trailer do not exceed the GVWR***.

Be especially careful to avoid overloading the trailer by putting heavy baggage, camping gear, etc. inside the boat.

Do not tow the boat with a water-filled bladder for wakeboarding. Empty the contents or the tongue weight will be incorrect.

Do not tow the boat with wakeboards left on the board racks. Doing so may void the warranty and cause damage to the boat or to vehicles following behind, as boards and/or racks may become disengaged.

WARNING

Do not tow the boat with wakeboards or skis in the boat or ski racks. Doing so may create a hazard for, or cause damage to, vehicles following behind the tow vehicle as the boards and/or skis may become disengaged while traveling, possibly resulting in damage to the vehicle or boat, which would not be covered by warranty.

WARNING

Towing with water-filled bladder(s) may not only cause the total weight limits for the trailer to be exceeded but may also result in the improper distribution of the weight on the trailer, thereby making towing difficult and/or causing instability when towing, which can be very dangerous to the driver, any passengers, and to other motorists. NEVER tow with water in the ballast bladders or tanks!

Weight Distribution

Improper weight distribution can cause a boat trailer to fishtail (sway from side to side) as it moves down the highway, putting excessive strains on both trailer and towing equipment, which increases gas consumption and may potentially cause an accident. The most effective way to guard against fishtailing is to make sure the weight load on the trailer is properly distributed.

It is extremely important that a minimum of five percent (5%) and a maximum of ten percent (10%) of the total weight on the trailer be felt at the trailer coupling ball when the tongue is parallel to the ground. A bathroom scale can be used for this determination.

For example, if the gross weight of the trailer, boat and gear is 3,000 pounds, the weight on the tongue should not be more than 300 pounds, but not less than 150. *(Some auto manufacturers say that tongue weight should not exceed 200 pounds when using a weight-carrying, bumper-mounted hitch with full-sized cars.)* Check the tow vehicle owner's manual.

The importance of an adequate download on the hitch ball cannot be over-stated.

The Trailer Hitch

There are two basic types of trailer hitches: A weight-carrying hitch and a weight-distribution hitch. A weight-carrying hitch is recommended for use with a MasterCraft boat and trailer. Before deciding upon which type of hitch to use, also consult the automobile manufacturer on recommendations for the tow vehicle.

Be sure that the total weight of the trailer-boat rig does not exceed the hitch's load capacity. The maximum weight it can handle is stamped on the hitch. Also, be sure the hitch ball is the correct size to match the coupler on the trailer. The correct ball diameter is marked on the trailer coupler. The hitch should also provide a place for attaching the trailer's safety cables—two rings or holes on either side of the hitch ball.

A truck or van using a step bumper as the hitch platform will need to have safety cable attachments such as eye-bolts, as well as a hitch ball, which has been installed according to the Society of Automotive Engineers; SAE J684 Standard. Installing a light or heavy-duty hitch can be a major undertaking. The hitch and its installation must meet the SAE J684 Standard. It is recommended that the job be done by a professional. An authorized MasterCraft dealer can offer advice.

To ensure that the boat is riding properly on the trailer supports, the trailer should be in a level position when hitched to the tow vehicle. The recommended height of the hitch ball, according to the National Marine Manufacturer's Association ("NMMA"), is 18 to 20 inches to the top of the ball from the ground. More importantly, failure to adjust to this height may prematurely activate the surge brakes.

This can be corrected in a number of different ways. For example, air-pressure adjustable shock absorbers may be installed on the tow vehicle, or switch from a weight-carrying hitch to a weight-distributing hitch. Again, consult with the tow-vehicle's dealer or manufacturer.

In general, for Class 3 rigs (3,500 to 5,000 lbs.), a two-inch (2") ball is the requirement. For Class 4 (5,000 to 10,000 lbs.), a ball of either 2" or 2-5/16" will be required.

WARNING

If the total weight on the loaded trailer exceeds the load capacity of the hitch on the tow vehicle, then the trailer may break free, which may result in serious injury or death and/or property damage.

Safety Cables

The safety cables on a MasterCraft trailer provide added security that the trailer will not become detached from the tow vehicle when underway. Before each trip, ensure that the proper cables are correctly attached between the tow vehicle and the trailer.

As noted above, the trailer hitch should provide a place for attaching safety cables, through holes or rings on both sides of the hitch ball. It is strongly recommended, and most states require, that the cables be criss-crossed under the trailer tongue (e.g., the cables on the left side of the trailer tongue should be attached to the hole or ring on the left side of the hitch ball, and the right cable should be attached to the hole or ring on the left side of the hitch ball). This will prevent the trailer tongue from dropping to the road if the trailer coupler separates from the hitch ball.

The cables should be rigged as tightly as possible, with just enough slack to permit tight turns. If for any reason it becomes necessary to replace a safety cable, do not substitute with any part other than a genuine MasterCraft cable.

Note that all current models of MasterCraft trailers are equipped with a surge brake break-away cable. This should be attached to the tow vehicle, making sure there is enough slack for tight turns.

WARNING

Failure to properly attach the safety cables and brake actuator break-away cable between the trailer and the tow vehicle may result in a run-away trailer if the trailer coupler becomes detached from the hitch. This may cause serious injury or death and/or property damage.

Trailer Winch Assembly

Prior to each use of the winch, check for the proper ratchet operation. Do not use the winch if it is damaged. Seek immediate repairs.

Maintain a firm grip on the winch handle at all times. Never release the handle when the ratchet lever is in the unlocked position with a load on the winch because the handle will spin violently under these conditions, which may cause serious injury.

Never use the winch handle as a handle for pulling or maneuvering the entire trailer or other equipment. Never pull on the winch handle against a locked ratchet.

Never exceed the rated capacity of the winch. Excessive loads may cause premature failure and result in serious injury.

Never apply a load on the winch with the strap fully extended. Keep at least two full turns of the strap that's on the reel.

Inspect the condition of the winch strap. Using a damaged or worn winch strap may result in serious injury or damage.

It is not recommended to use the winch as the sole method for loading the boat onto the trailer. However, it is a satisfactory assistant in the event of engine power loss.

Check the winch straps frequently. The strength in these can deteriorate from exposure to weather, ozone and ultraviolet light. If a strap becomes frayed or worn, replace it immediately with a new one.

A heavy grease should be applied to the gears to provide a free-running drive and to minimize the effort you have to expend to crank the boat onto the trailer.

The winch is intended solely as an aid to loading the boat on the trailer. It is not intended or adequate to be the sole means of holding the boat in place while trailering. Proper tie-downs fore and aft must be used.

Warnings at Tongue

Read and adhere to all warning labels, especially those that appear on the pivot tongue.

Master Cylinder Level

Regularly verify that the brake fluid level comes to the top of the reservoir (as marked). MasterCraft's specification for brake fluid is type DOT3 Premium.

As part of an annual maintenance program, consumers should check the fluid level both at the beginning and at the end of the boating season. The manufacturer specifies that the brake fluid be replaced every two (2) years at minimum. If at any time you suspect a braking issue, check the fluid level.

Trailer Coupling

Your trailer coupling is designed to have the required strength when a hitch ball is in its socket. It is therefore necessary to exercise care when the trailer is disconnected from the hitch so that the coupling is not subjected to any impact.

WARNING

Failure to properly engage the hitch ball in the coupler ball socket and to securely lock the coupler latch mechanism can cause the trailer to become detached from the tow vehicle while traveling, which may result in serious injury or death and/or property damage.

The coupling should not be allowed to lay on the ground where dirt or sand can enter the socket. This can cause excessive wear when the trailer is towed again, or it can cause the locking mechanism to jam.

If the coupler becomes damaged it must be repaired or replaced prior to towing. When the coupling is placed on the ball, the latch should close firmly. Keep the latch mechanism lightly oiled and clean. ***Always install a lock pin in the coupler to help ensure that the coupling does not become disengaged.***

WARNING

Before each use make certain that all trailer lights are in proper working order, to reduce the risk of serious injury, death and/or property damage.

Lights

The MasterCraft trailer harness was specifically designed to mate with O.E.M. automotive equipment. This harness is designed to disengage the trailer brakes with the use of the tow vehicle's O.E.M. harness.

Note: See an authorized MasterCraft dealer if the tow vehicle does not have the correct trailer harness.

Here are a few good things to do to keep the trailer lighting system in good working order:

- Be sure the white ground wire is properly connected to the trailer frame. Replace any parts that are damaged or worn.
- A small amount of waterproof grease on the plug contacts and light bulb bases will help prevent rust and corrosion.
- Before every trip, check for burned out or broken bulbs, cracked or broken light lenses, etc.

Wheels and Hubs

Because they are often exposed to water, trailer wheels and tires require more attention than the wheels on a family vehicle. The three major items to check are lug nuts, lubrication and tire pressure.

WARNING

Maintain the proper torque on the lug nuts attached to the wheel bolts. Failure to do so may result in serious injury or property damage. An authorized MasterCraft dealer can provide the proper torque specifications (measured in foot-pounds).

WARNING

Keep the wheel bearings lubricated. Inspect the wheel bearings for proper lubrication before each use. Failure to do so may cause wheel failure and possible wheel loss, which may result in serious injury or death and/or property damage.

As part of the regular maintenance, keep the axle assembly properly lubricated. This procedure is best performed by your MasterCraft dealer. The fill plug in the hub nose must be removed so that 50-weight oil can be added. "Never-seize compound" should be applied to the fill plug, which is then reinstalled and torqued to 7 ft-lbs. If at any time the oil in the hub appears milky, the system must be serviced immediately.

Lug Nuts or Wheel Bolts

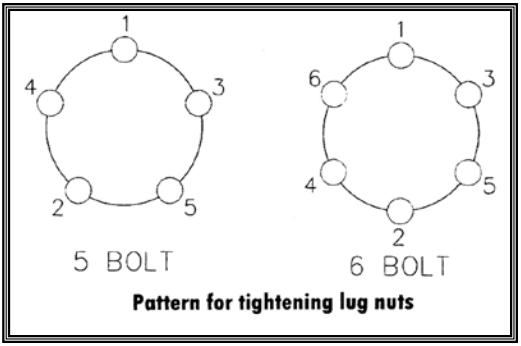
Loose wheel mounting nuts (lug nuts) can cause more than just an annoying wheel wobble—it's possible to lose a wheel. Before each trip check for loose or missing lug nuts/wheel bolts.

When tightening the lug nuts, use the correctly sized wrench. The wrong size can round off the lug nuts and render them useless. If you lose a lug nut, replace it promptly. The correct size varies with different models, so verify the proper size with an authorized MasterCraft dealer.

Take special care to ensure that the replacement lug nut is the correct type. While the threads of the lug nut may match, it may be a size that does not hold the wheel securely against the hub, even when fully tightened. Be certain a replacement lug nut is an exact match for the original.

- Ensuring that lug nuts on trailer wheels are tight and properly torqued is an important responsibility that trailer owners and users need to be familiar with and practice. Inadequate and/or inappropriate lug nut torque (tightness) is a major reason that lug nuts loosen during use. Loose lug nuts can rapidly lead to a wheel separation, with potentially serious safety consequences.
- Check the lug nut tightness often, especially during the first few hundred miles of the trailer's use. You should always check torque at the beginning of any long trip and every time a wheel is removed.
- You must use a torque wrench to accurately indicate the amount of torque that you are applying to the lug nut. Fore-way wrenches, ratchets, and similar tools can be useful for short-term emergency repairs but are not appropriate tools for accurately checking lug nut torque.
- Keep a record of the date and approximate mileage when the lug nut torque is checked. Note any lug nut(s) that lost torque. Investigate the reason(s) if

the lug nut torque is not maintained over more than one re-torque application because this indicates there is something potentially wrong with the lug nuts, nut studs, wheels and/or hubs and should be corrected.



Pattern for tightening lug nuts

- Contact an authorized MasterCraft dealer immediately if any persistent lug nut loosening (or any other lug, wheel or axle problem) occurs.
- In the event of a wheel separating from the trailer during use, notify an authorized MasterCraft dealer. Seek prompt professional assistance in assessing the trailer and its gear, and retain but do not re-use involved lug nuts, wheels and studs. Do not repair or service the trailer yourself. Instead, call a trained technician.
- Use the following pattern to tighten lug nuts. On first torquing pass tighten to 45 ft-lbs. On second pass tighten to 70 ft-lbs. On third pass tighten to 90 ft-lbs. On fourth pass tighten to a reading between 110 ft. lbs-120 ft-lbs.

Lubrication

Currently, trailers feature oil-bath bearings. Earlier models were equipped with easy lubricating hubs. However, water invades and seeps through the smallest of openings. When a warm hub is submerged in cold water, any air inside the hub will contract and draw water through even the best of seals.

The manufacturer suggests a standard 50-weight motor oil be used with this system. The oil bath system utilizes the same internal components as a conventional greased system. The only difference is the hub and cap. The cap is made from polycarbonate and is threaded into the hub. With this clear cap, it is possible to monitor the oil level inside the hub with a quick visual check.

Trailers equipped with the Bearing Buddy II with Auto Check simplify the process of keeping watch for proper lubrication. If the blue ring is fully extended (about ¼-inch extruded), there is adequate lubrication. As the grease dissipates, the ring will move back into the shell. When the blue ring is flush with the Bearing Buddy shell, it is time to re-lubricate.

The best protection against wheel bearing damage from water is to always keep the wheel assembly properly lubricated. View the sight window located on the axle hub and determine whether the lubricant appears milky. This

would indicate water intrusion and the lubricant should be replaced. Also check the seals for damage. When on a trip, make it a habit to check the wheel hubs every time you stop for gas or refreshments. If the hub feels abnormally hot, the bearings and brake should be inspected before continuing the trip.

The oil level in the bearing cavity of the rotor should always be maintained at the top of the logo on the face of the cap (halfway up the sight glass). A regular check of the torque on the cap should also be performed. The proper torque should be 25-30 ft.-lbs. If sudden oil loss is incurred, the torque on the cap should be immediately checked and a visual inspection of the rear seal should be performed to check for signs of leaks. As always, anytime the hub is disassembled for any maintenance, the bearings and seal should be inspected for signs of wear.

Wheel Bearings and Braking System

Wheel bearings and the braking system on the trailer should be inspected annually. If the bearings or bearing race show signs of scoring, they should be replaced, as well as any worn brake parts. An authorized MasterCraft dealer should perform this inspection and repair (as necessary).

Tires

The most common cause of trailer tire trouble is under-inflation. It is important, therefore, to always maintain correct air pressure as indicated by the tire manufacturer on the tire's sidewalls. Always check the air pressure when the tires are cold. Tires heat up and the air pressure increases after traveling short distances.

When trailer tires become worn or damaged, replace them with new tires. An authorized MasterCraft dealer can help you.

For safety and convenience, inflate tires to the air pressure indicated on the sidewall of the tire, but always carry a spare wheel and tire in case of unexpected or sudden issues with a tire.

During times of storage, maintain the proper tire inflation, shield tires from UV rays, and relieve the load on the tires by supporting the trailer frame with concrete blocks or jack stands.

WARNING

Keep tires properly inflated. Inspect each tire's pressure before each use. Refer to the tire sidewall for proper inflation. Failure to maintain the correct tire pressure may result in tire failure and loss of control, which may result in serious injury or death and/or property damage.

Brakes

In most states, trailers with a Gross Vehicle Weight Rating (GVWR) of 1,500 pounds or more are required by law to have brakes on all wheels. (Auto manufacturers generally recommend brakes even with lighter trailers.)

WARNING

Trailer brakes must be maintained in good working condition at all times. Inspect the brake system on a regular basis and verify proper fluid level in the actuator. The loss of adequate braking could result in serious injury or death and/or property damage.

MasterCraft trailer brakes are designed to operate automatically when the tow vehicle's brakes are applied. These are known as surge brakes. When the tow vehicle slows down or stops, the forward momentum (surge) of the trailer

against the hitch ball applies pressure to a master cylinder in the trailer coupler. This pressure activates the trailer brakes through a hydraulic system, much like the brakes on an automobile.

Try the brakes before each trip. On a regular basis, have the brake linings inspected, necessary adjustments made and any damaged or worn parts replaced.

Wet brakes usually do not hold especially well. If the wheels have been in water, several brake applications at slow speeds should dry them out.

Trailer Jack

MasterCraft recommends using the trailer jack to lift the coupling of a loaded trailer from the hitch ball, and for moving the trailer about when it is disconnected from the towing vehicle. Rotate the trailer jack to the vertical position and engage the locking pin before placing a load on the trailer jack.

Like any mechanical assembly, the trailer jack requires maintenance to continue functioning properly. The drive gear and the rack-and-pinion should be greased, and the coaster and wheel bearings should be oiled frequently.

Failure to swing up the trailer jack before towing may result in damage to the trailer.

WARNING

Failure to engage the locking pin may result in the collapse of the jackstand, which could cause serious injury or death.

Tie-Downs

Ensuring that a MasterCraft boat will be held securely in place on the trailer's hull support, especially when underway, is extremely important. If the boat is not firmly and properly secured, the boat can be damaged as it bounces against the hull supports.

MasterCraft's Boat Buddy System is located on the winch stand. **Ask an authorized MasterCraft dealer to demonstrate the proper use of the Boat Buddy System**. A separate winch strap is provided and should be attached to secure the boat to the bow strap.

Also, it is very important to be sure that the transom of the MasterCraft boat is resting fully and securely on the supports provided at the rear end of the trailer, and that it remains in place when parked or underway.

Tie-downs have been added on both the bow and transom of the boat and must be used while trailering.

Hitching Up

- Hitch only to the ball size marked on the coupler.
- Be certain that the ball clamp captures the ball and lever or that the handwell is fully closed or tightened. Insert safety pin or optional lock pin.
- Cross the safety cables under the coupling.
- Allow only enough slack in the safety cables to handle turns. When hitching the trailer up, always observe each item on the Trailer Check List, found in this Manual. Hitching the trailer to the tow vehicle may be performed by just one person, but it is definitely easier with a second person to help guide.

Here are the basic steps to hitch up to the trailer:

- Slowly back the tow vehicle as close as possible to the trailer. It's easier—and

safer—than pulling the trailer to the car or truck.

- Check to be sure the coupler locking device is released.
- Raise the front end of the trailer with the trailer jack, position the coupler directly over the hitch ball and lower the trailer until it is all the way down onto the hitch ball.
- Check under the coupling to be certain that the ball clamp is below the ball and not riding on top of the ball.
- Lock the coupler to the hitch ball. To confirm that the coupler is locked onto the hitch ball, lift up on the trailer jack. If the trailer jack comes loose from the hitch ball, unlock and go back to the third step above.
- Be certain that the trailer jack is in the fully raised and locked position.
- Attach the surge break-away cable to the tow vehicle, making sure there is enough slack for tight turns.
- Attach the safety cables.
- Connect the trailer's seven-wire connector to the seven-wire connector of the tow vehicle and check the operation of the lights.

Trailer Tips & Techniques

With a boat trailer in tow, an operator will be driving down the road with a vehicle combination that is longer, heavier and sometimes wide and taller than the tow vehicle. This means the operator should make a few adjustments to normal driving practices to compensate for the differences. Here are a few tips:

- **Take a shakedown cruise.** Before making the first major trip or first trip to the lake with a MasterCraft trailer, make at least one short trial run to become familiar with its handling characteristics. Be sure everything is working properly.
- **Slow down.** There is less strain on the tow vehicle, trailer and boat at moderate to slow speeds. Also, many states have lower speed limits for vehicles towing trailers.
- **Allow extra time and space.** You'll need more of both when passing and stopping.

- **Check the rear view mirrors.** If not already equipped with them, install outside rear view mirrors on both sides of the tow vehicle. Make it a habit to check the mirrors at frequent intervals to be sure the trailer and boat are riding properly.
- **Swing wider.** Trailer wheels are closer to the inside of turns than the wheels on the tow vehicle. This means swinging wider at curves and corners.
- **Pass with extra care**. With a trailer in tow, operators need more time and distance to accelerate, get around slower vehicles and return to the right lane.
- **Pay attention to wind.** Be prepared for sudden changes in air pressure and/or wind buffeting when larger vehicles pass from either direction. Slow down a little and keep a firm hand on the steering wheel.
- ***Conserve fuel.*** Wind resistance against the boat and trailer can reduce gas mileage significantly, especially at higher speeds.
- **Avoid sudden stops and starts**. Even though the trailer has brakes, a sudden stop can cause it to skid, slide or even jackknife. (Be especially careful to avoid the necessity for quick stops while turning.) Smooth, gradual starts and stops will improve gas mileage and put less strain on the tie-downs, etc.

- **Signal your intentions.** Well before stopping, turning, changing lanes or passing, use turn signals to let other vehicles know what you intend to do.
- **Shift to a lower gear.** If the tow vehicle has a manual transmission, traveling in lower gears when going up steep hills or over sand, gravel or dirt roads will ease the load on the engine and transmission.
- **Always be courteous.** Make it as easy as possible for faster-moving vehicles to pass you. Remain in the slower lane and be prepared to reduce speed if they need extra time to return to the lane.
- **Do not tailgate.** Allow at least one combined car and trailer length between you and the car ahead for every 10 mph you are traveling.

If a problem occurs, the general rule is to stay calm. Do not panic and do not do anything any more suddenly or violently than is necessary.

A sudden bumping or fan-tailing may be a flat tire. Do not jam on the brakes or mash the accelerator to try to drive out of it. Stop slowly and in as straight a line as possible. If conditions permit, allow the trailer and tow vehicle to coast at

a very slow speed and try to avoid braking, except when the wheels are straight ahead and the trailer and tow vehicle are in line.

If the trailer begins to fish-tail under acceleration to highway speed, back off the accelerator a little, and it should cease. If it begins again upon acceleration, stop and check the load. If the load is not evenly distributed, or if it is too far back so that the hitch load becomes too light, the result can be fish-tailing. Re-distribute the load before continuing.

Launching

Every MasterCraft boat owner develops his or her own favorite launching technique. Until you do, here are a few helpful tips:

- **Check the ramp first.** Whether launching from an unimproved or surfaced ramp, check it out before starting the launch procedure. How steep is it? Is the surface firm enough to support the weight of the trailer and tow vehicle? Is it wide enough? How deep is the water at the end of the ramp?

⚠ CAUTION

Use great care when walking, standing or loading and unloading boats on or around any launch ramps as some launch ramps may be slippery when wet.

- **Prepare for launching.** Install the drain plugs and detach the trailer tie-downs.
- **Slowly back the trailer down the ramp.** If possible, have someone stand to one side of the ramp to provide directions. Backing up a trailer can be tricky. A good way to simplify the procedure is to grasp the steering wheel with one hand at its lowest point (6 o'clock). To make the trailer go right, move your hand on the wheel to the right; to make the trailer go left, move your hand to the left.
- **Slowly back the trailer into the water until the trailer tire wheel well is about even with the water surface.** (This may vary with the angle of the ramp.) Set the parking brake and shift into park *(automatic transmission)* or first gear *(manual transmission)*. Shut off the engine. Unlock the Boat Buddy latch and winch hook; then back the boat off the trailer.

To re-load the boat on the trailer, simply reverse the above procedures, including setting your Boat Buddy latch to the proper position, and drive the boat onto the trailer at a slow pace. Before loading, clean any dirt or sand off the rollers and bunks. Sand on these can abrade the boat's bottom while trailering. Be sure to back in and completely wet the trailer bunks, then pull forward to the loading position.

Be certain all the boat tie-downs are properly fastened down before departing from the launching ramp area. Proper loading depth on trailers will vary with conditions, but a good starting point would be the same as launch depth or slightly higher.

Helpful tip: After the launch depth has been properly determined, apply a strip of reflective tape at the water level on each guide post. That will allow launch depth to be easily repeatable.

⚠ CAUTION

Wet brakes may not hold and/or may cause brakes to have diminished performance characteristics. A few braking applications at a slow speed will help to dry them out. Extra care must be used when braking after brakes have become wet.

Storage

When the MasterCraft trailer will not be in use for several months, the following steps may increase the life and performance of the trailer:

- If at all possible, park the boat trailer in a protected area such as a garage, carport or similar shelter.
- Service or re-pack the wheel bearings.
- Loosen the tie-downs and winch strap, but be sure the boat is still resting properly on the hull supports.
- Remove the drain plug and elevate the trailer tongue slightly (just an inch or two) to allow water to drain out so the boat will be dry. Tie the drain plugs from the boat's bilge system to something obvious such as the steering wheel so that they will be easy to remember to re-install before the next outing.
- A good time to touch up rust spots, nicks and chips is when the trailer is in storage.
- Replace damaged tie-downs, winch straps, wiring, etc.
- Maintain proper tire inflation.
- Shield tires from UV rays.
- Relieve the load on the tires by supporting the trailer frame with concrete blocks or jack stands.
- Lubricate moving parts such as the rollers and winch, as well as the ball coupler.
- Tighten any loose nuts and bolts.

Trailering Tips

The trailer jack and lug wrench that came with the tow vehicle may also work on the trailer, but don't count on it! Check to make sure.

- The trailer will look better and last longer if it is rinsed off with fresh water several times a year. If the boat is run in brackish or salt water, the trailer should be rinsed thoroughly after every trip because of residual effects of the brackish or salt water. An annual washing with a mild detergent and waxing

with an auto wax will also help to keep the trailer bright and clean.
- Make up a special boating kit and carry it with you on all trips. The kit should include a spare wheel and tire, lug wrench, wheel chocks, bearing grease, spare strap for tie-downs and winch, extra lights, wheel bearings and road flares.
- Some insurance policies do not provide coverage when towing a trailer. Check the policy or call the insurance agent to be certain that coverage exists.

Trailering Check List

Never tow the trailer before checking to be sure:
- **Coupler, hitch and hitch ball are of the same size.**
- **Coupler and safety cables are safely secured to the hitch.**
- **Check all fasteners for proper tightness.**
- **The boat is securely anchored to the trailer.** ***(The winch strap by itself is not a satisfactory tie-down!)***
- **The wheel lug nuts are properly torqued (tightened).**
- **The wheel bearings are properly adjusted and maintained.**
- **The load is within the maximum load-carrying capacity of both the trailer and the tow vehicle.**
- **The tires are properly inflated.**
- **All trailer lights are working properly.**
- **Trailer brakes are properly adjusted and working.**
- **That the tower on the boat (if so equipped) is secure, whether it is upright and locked in place or has been lowered. Also be certain that there is sufficient overhead clearance before removing the boat/trailer from cover, or when towing that the unit will clear any overhead items such as trees, bridges, overhead power lines, overpasses, etc.**

This trailer is manufactured to meet the applicable federal safety standards at the time of manufacture. Check the local and state requirements regarding any additional equipment that may be required.

Note: Trailer laws covering such things as brakes, lights, safety cables, licenses, etc., will vary from state to state. Be sure that the trailer is in full compliance with applicable state laws. An authorized MasterCraft dealer can help in this regard. Otherwise, contact the nearest state motor vehicle department.

Limited Warranty Statement

1. Limited Warranty and Term. MasterCraft Boat Company, LLC ("MasterCraft") warrants to the original retail purchaser that the trailer shall be free from material defects in materials and workmanship to the extent set forth below, under normal use and when operated and maintained in accordance with MasterCraft's instructions, for the period indicated:
   - 1.1 Trailer and Trailer Component Parts. One (1) year from the date of the original retail purchase of the trailer or the initial use of the trailer, whichever occurs first.
   - 1.2 Rubber Torsion Axles. A warranty period of five (5) years is extended to all Reliable rubber torsion axles and covers the axle beam only.
   - 1.3 Assembled Units with Lube Systems (Sure Lube, Bearing Lube, Oil Bath). A warranty period of three (3) years is extended to all assembled units with Lube Systems. This warranty excludes brakes, which are subject to the brake manufacturer's warranty. Any disassembly of the unit or replacement of parts from within the unit voids this warranty.
   - 1.4 Hub, Drums & Spindles. A warranty period of one (1) year is extended to all hubs, drums and spindles manufactured by Reliable.
   - 1.5 Reliable Disc Brake System. A warranty period of two (2) years is extended to the Reliable Disc Brake System. This includes the rotor and caliper assembly (excluding the disc brake pads).
   - 1.6 Reliable Surge Brake Actuator. A warranty period of two (2) years is extended on all surge brake actuators manufactured by Reliable.

2. Warranty Conditions, Limitations and Exclusions. MasterCraft trailers are manufactured by trained craftspersons from high-quality materials and components. However, conditions outside MasterCraft's control require specific limitations on, and exclusions from, coverage under this warranty. The Limited Warranty constitutes the final, complete and exclusive statement of warranty terms, and no other person or entity is authorized to make any other warranties or representations on behalf of MasterCraft. Furthermore, the Limited Warranty set forth in Section 1 (including all subsections) hereof does not cover the following:

   (a) damage caused by misuse, negligence, accident, collision or impact with any object;
   (b) damage caused by any improper alteration or modification to the trailer or any of its component parts or accessories, including damage resulting from alteration, modification, repair or replacement that renders the trailer different from its originally manufactured condition;
   (c) damage caused by the use of customer-applied chemicals or accidental spills;
   (d) damage caused by failure to maintain the trailer in accordance with the maintenance provisions in the Owner's Manual or improper maintenance of the trailer;
   (e) damage resulting from use of the trailer for rental, commercial or industrial purposes;
   (f) damage to hardware and other components fastened or adhere to the trailer;
   (g) damage caused by fire, theft, freezing, vandalism, explosion, lightning, wind, hail storms, flooding or other natural disaster;
   (h) damage to any component parts and accessories not manufactured by MasterCraft;
   (i) damage to the trailer and its parts or components due to abrasions, rock chips, rust, improper care or maintenance, or use in salt or brackish water; however, the finishes of galvanized trailers, which are designed for use in salt or brackish water, are warranted to be free from damage resulting from use in salt or brackish water for one (1) year from the date of the original retail purchase or the initial use of the trailer, whichever first occurs;
   (j) damage caused by dealer-installed options or accessories;
   (k) damage caused by consumer-installed options or accessories;

and/or

(l) all warranted coverage will expire after ninety (90) days on trailers used for commercial purposes.

3. Disclaimer and Limitation of Implied Warranties. THE EXPRESS LIMITED WARRANTY SET FORTH HEREIN IS IN LIEU OF ALL OTHER WARRANTIES AND REPRESENTATIONS, EXPRESS OR IMPLIED, AND TO THE MAXIMUM EXTENT PERMITTED BY APPLICABLE LAW. MASTERCRAFT DISCLAIMS, AND THE OWNER HEREBY EXPRESSLY WAIVES, ANY AND ALL OTHER WARRANTIES OR REPRESENTATIONS OF ANY KIND OR NATURE, INCLUDING, BUT NOT LIMITED TO, IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, OTHER THAN THOSE WARRANTIES WHICH ARE IMPLIED BY, AND ARE INCAPABLE OF EXCLUSION, RESTRICTION, OR MODIFICATION UNDER APPLICABLE LAW, INCLUDING, BUT NOT LIMITED TO, IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, SHALL BE LIMITED TO THE DURATION OF THE FOREGOING EXPRESS WARRANTY PERIODS APPLICABLE TO THE RESPECTIVE COMPONENTS. SOME STATES DO NOT ALLOW THE EXCLUSION OF IMPLIED WARRANTIES AND/OR DO NOT ALLOW LIMITATIONS ON HOW LONG AN IMPLIED WARRANTY LASTS, SO THE ABOVE LIMITATIONS MAY NOT APPLY TO YOU. THIS LIMITED WARRANTY GIVES YOU SPECIFIC LEGAL RIGHTS. YOU MAY HAVE OTHER RIGHTS WHICH VARY FROM STATE TO STATE.

4. Limitation of Liability.

4.1 Liability Limitation; Exclusion of Consequential Damages. This warranty is for the benefit of the owner and MasterCraft, and shall not create or evidence any right to any third party. THE REPAIR OR REPLACEMENT OF DEFECTIVE COMPONENT PARTS AS PROVIDED UNDER THIS LIMITED WARRANTY IS THE EXCLUSIVE REMEDY OF THE CONSUMER. TO THE MAXIMUM EXTENT PERMITTED BY APPLICABLE LAW, IN NO EVENT SHALL MASTERCRAFT BE LIABLE FOR ANY INCIDENTAL, CONSEQUENTIAL, SPECIAL, INDIRECT, PUNITIVE OR EXEMPLARY DAMAGES OR LOST PROFITS WHATSOEVER ARISING OUT OF THE USE OR INABILITY TO USE THE BOAT OR ANY COMPONENT PART THEREOF, OR FOR ANY BREACH OF THIS WARRANTY OR OTHERWISE, EVEN IF MASTERCRAFT HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES OR SUCH DAMAGES COULD REASONABLY HAVE BEEN FORESEEN BY MASTERCRAFT. However, some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you.

4.2 Purchase Price Limitation. In any event, MasterCraft's entire liability under any provision of this Limited Warranty shall be limited to the repair or replacement of the trailer or component part, or the refund of the purchase price paid by the original retail purchaser for the trailer or component part found to be defective within the applicable warranty period. This shall constitute MasterCraft's sole liability and obligation in the event of any claim arising out of its performance or non-performance of any provision of this Limited Warranty. Because some states and jurisdictions do not allow the exclusion or limitation of liability, the above limitations may not apply to you.

5. Transfer of Limited Warranty. Upon the first sale, conveyance or other transfer of the trailer by the original retail purchaser, any remaining unexpired Limited Warranty coverage shall be transferred to the second owner and shall remain in effect for the remainder of the applicable warranty period set forth in Sections 1.1 through 1.6 above, if the sale, conveyance or other transfer of the trailer by the original retail purchaser to another person or entity occurs within one (1) year of the date of the original retail purchase of the boat by the original retail purchaser, then the warranty shall be transferred for the remainder of the original warranty period. If the sale, conveyance or other transfer of the trailer by the original retail purchaser occurs more than one (1) year after the date of the original retail purchase of the trailer, then the Limited Warranty shall be void as of the date of transfer and shall not be transferable to the second owner.

Only one (1) transfer under the provisions of this Section 5 (from the original retail purchaser to the second owner), within the applicable time period, may be made. In the event of a sale or transfer of the trailer by a second owner to a subsequent purchaser, all coverage under this Limited Warranty shall immediately be terminated and the Limited Warranty shall become null and void. No transfer of this Limited Warranty will operate to extend the warranty period set forth in Section 1 above. In order to effectuate the transfer of the Limited Warranty if available pursuant to this Section 5, the original retail purchaser and the new owner must properly fill out the warranty transfer card, which is available through Technical Services, MasterCraft Boat Company LLC, 100 Cherokee Cove, Vonore TN 37885, and deliver the completed card, together with a check made payable to "MasterCraft Boat Company, LLC" in the amount of the warranty transfer fee, via U.S. mail, postage prepaid, to MasterCraft at the address shown on the warranty transfer card. The card and check for the warranty transfer fee must be post-marked within the time period specified above in this Section 5 in order for the warranty transfer from the original retail purchaser to the second owner to be effective.

6. Warranty Claims. In order to maintain warranty service under this Limited Warranty, the owner must return the defective trailer or component part to an authorized MasterCraft repair facility, or to MasterCraft's factory at the below address, within the applicable warranty period. For questions regarding warranty service or to obtain information regarding the nearest authorized MasterCraft repair facility, please contact MasterCraft at the following address or telephone number:

MasterCraft Boat Company, LLC
Attention: Warranty/Customer Service Department
100 Cherokee Cove Drive
Vonore, Tennessee 37885
1-423-884-2221

Subject to the terms of this Limited Warranty, any covered trailer or component part with a material defect in the materials or workmanship that is returned to an authorized MasterCraft repair facility or MasterCraft's factory during the appropriate warranty period will be repaired or replaced, at MasterCraft's sole option, without charge to the owner for parts and labor. This provision is subject to the following terms and conditions:

(a) MasterCraft shall be obligated only to repair or replace those items that prove defective, in MasterCraft's sole discretion, upon examination by MasterCraft's authorized repair facility or MasterCraft's own personnel, as applicable.
(b) MasterCraft warrants its repairs or replacements only for the remainder of the applicable warranty period.
(c) MasterCraft shall, in its sole discretion, fulfill its obligation to repair or replace any defective item at its factory or authorized repair facility.
(d) The owner shall be responsible for all costs associated with the transportation of the trailer or component part(s) to the authorized MasterCraft facility and for any return transportation.

7. No Modification of Warranty. No oral or written information, advice or communication of any nature by or from MasterCraft or its representatives, employees, dealers, agents, distributors or suppliers shall create a warranty or in any manner increase or modify the scope of this Limited Warranty.

Maintenance

Before Initial Use:

- Read the Owner's Manual completely.

Before Every Trip:

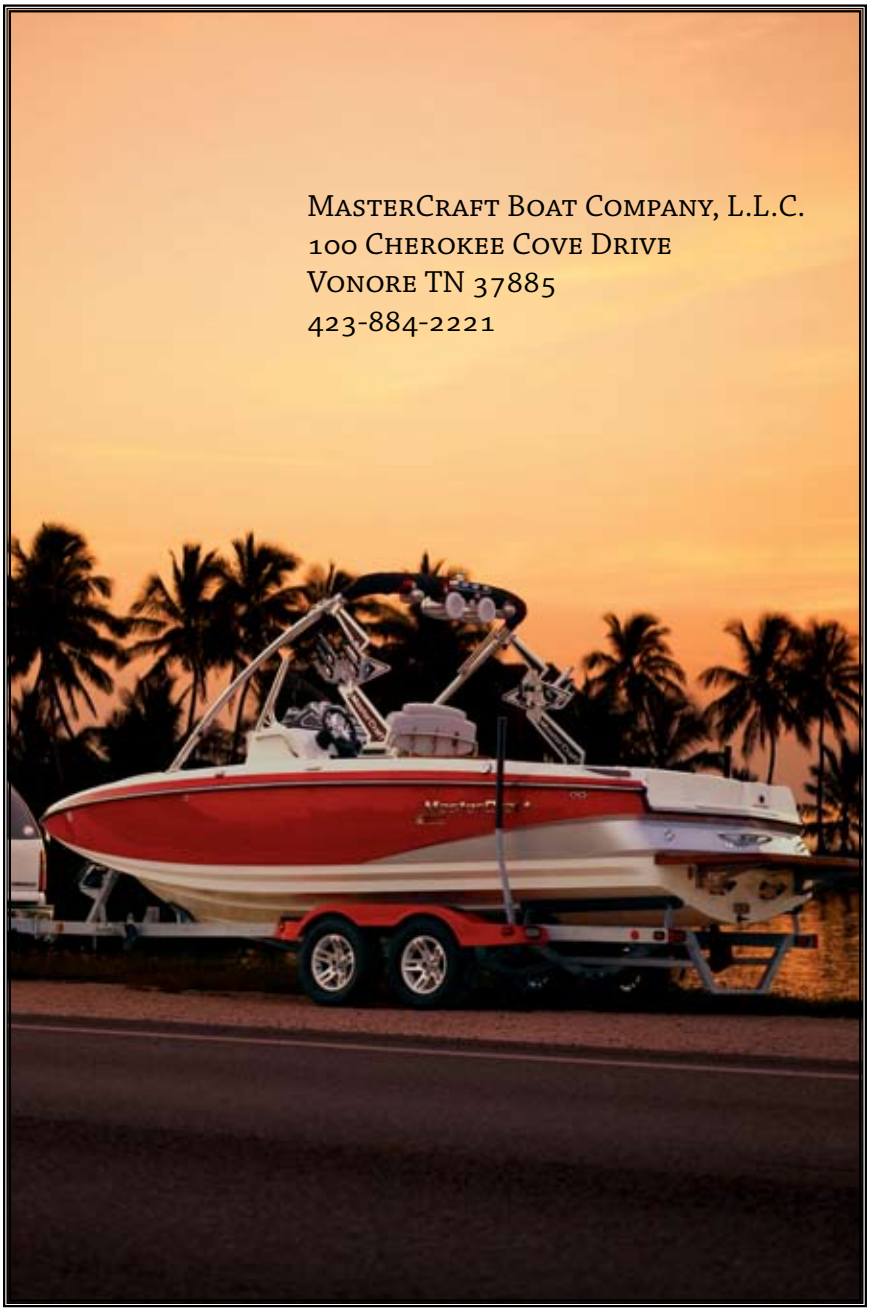
- Verify that the tongue weight and load are within proper specification.
- Check the brake fluid reservoir to ensure it is at least three-quarters full.
- Examine the actuator for wear, bent parts, corroded/seized parts or other damage.
- Test the actuator to verify the brakes are working prior to use.
- Verify all lights are working properly.
- Verify the coupler latch is locked to the ball properly.
- Verify the safety cables are properly attached to the tow vehicle.
- Verify the emergency brake cable is attached properly to the tow vehicle.
- Verify the boat is properly loaded on the trailer and properly tied down to the trailer.
- Verify and/or correct tire pressure.
- Ensure the lug nuts are properly torqued. (This must also be done after the first 25 miles of towing and every 100 miles thereafter.)
- Verify the wheel jack is retracted and swung up and in the locked position prior to towing.
- Verify the tow vehicle has not exceeded the load capacity prior to towing.
- Verify the oil level is proper for the wheel bearings equipped with the oil bath system.
- Check the guide pole bars to ensure they are tight.

Every three to six months or 250 miles (in addition to above):

- Grease the trailer jack.
- Oil the trailer jack handle in accordance with the manufacturers' recommendations.
- Examine the entire trailer for any abnormalities or damage.
- Examine the trailer bunks for any signs of abnormal wear.
- Lubricate all the rollers on the trailer with a light coat of oil.

Annually (in addition to the above):

- Have the braking and suspension system inspected by a certified technician.
- Change the oil in the oil bath.



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